Design:
2-way solenoid valve, direct acting, normally closed (Circuit function C), normally open (Circuit function D) or mixer function (Circuit function E).

Seal Materials and Fluids handled:
See Table.

Fluid and Ambient Temperature:
For Hazardous Locations Div. 1 (T4 rated)

Max. Ambient Temperature	104 °F (40 °C)
Max. Fluid Temperature	194 °F (90 °C)

For Hazardous Locations Div. 1 (T6 rated)

Max. Ambient Temperature	104 °F (40 °C)
Max. Fluid Temperature	140 °F (60 °C)

For Hazardous Locations Div. 2 and Ordinary Locations:
See Table.

Pressure Range:
Maximum inlet pressure see label on valve.

Installation:
Before installing valve ensure that piping etc. is free of foreign matter (metal fillings, seal materials, welding scale etc.). Installation as required but preferably with coil uppermost. Installation in this position tends to prevent foreign matter remaining in core tube (increased life). Do not put any loads on coil unit.

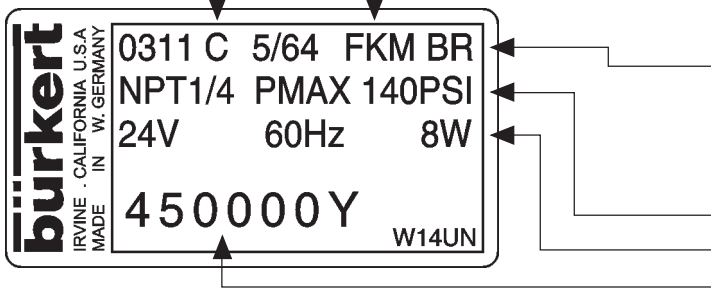
Type 0311: PTFE tape is recommended for sealing ports. Mounting is accomplished by means of four M4 x 8 mm tapped holes located on the valve underside.

Type 0312: Ports A (B) are coded on side of body. For common pressure, align "A (B)" marking on valve and manifold. Valve operation C and D valves cannot be manifolded together. To remove valve from manifold loosen only the two unsealed screws. Manifolds can be connected togehter with nipples.

Approvals
The valve is either approved as
General Purpose valve for Hazardous Locations
Class I, Division 1, Group A, B, C, D
Class II, Division 1, Group E, F, G
Class III, Division 1 and 2
Operating Temperature T 4
or
General Purpose valve for Hazardous Locations
Class I, Division 1, Group A, B, C, D
Class II, Division 1, Group E, F, G
Class III, Division 1 and 2
Operating Temperature T 6
or
FM approved as
Nonincendive for Hazardous Locations
Class I, Division 2, Group A, B, C, D
Class II, Division 2, Group F, G
Class III, Division 1 and 2
Operating Temperature T 4
UL listed for Ordinary locations
CSA approved for Ordinary locations

See label on the valve.

Marking (example):



Circuit function

C	=	Normally Closed
D	=	Normally Open
E	=	Mixer Function

Seal Material

EPDM	=	EPDM
NBR	=	NBR
FKM	=	FKM
EA	=	PTFE seat and EPDM O-ring
EF	=	PTFE seat and FKM O-ring
NN	=	Neoprene
RF	=	Ruby seat and FKM O-ring

Body Material

BR	=	Brass
SS	=	Stainless Steel
NI	=	Nickel Plated Brass
PL	=	Polyamide Plastic

Maximum Pressure
Voltage / Frequency / Power Consumption
Recorder No.

		Seal Materials			Seat / O-ring		
Fluid	Tempera-tures [°F]	Buna „N‰	Ethylene Propylene	FKM	PTFE/ Ethylene Propyl.	PTFE/ FKM	Neoprene
Air	Fluid T. Ambient	+14 to +194 +14 to +130	- 40 to +266 +14 to +130	+14 to +266 +14 to +130	+14 to +266 +14 to +130	+14 to +266 +14 to +130	
Water	Fluid T. Ambient	+32 to +194 +32 to +130	+32 to +212 +32 to +130	+32 to +212 +32 to +130	+32 to +212 +32 to +130	+32 to +212 +32 to +130	
Neutral Gas	Fluid T. Ambient	+14 to +194 +14 to +130	- 40 to +266 +14 to +130	+14 to +266 +14 to +130	+14 to +266 +14 to +130	+14 to +266 +14 to +130	
Light oil	Fluid T. Ambient	+14 to +194 +14 to +130		+14 to +266 +14 to +130		+14 to +266 +14 to +130	
LP-gas	Fluid T. Ambient	+14 to +140 +14 to +130		+14 to +140 +14 to +130		+14 to +140 +14 to +130	
Refrigerants	Fluid T. Ambient						+14 to +194 +14 to +130

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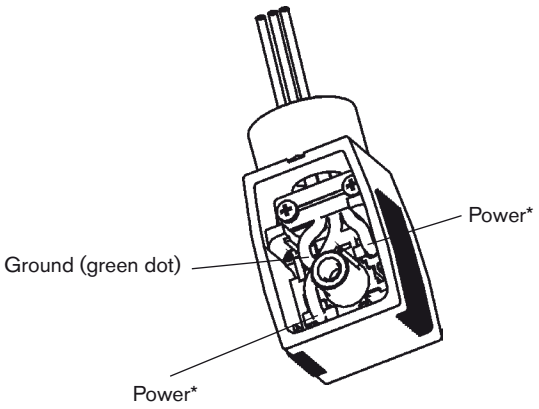
Operating Instructions 0605/08_EU-EN_00893135

Wiring Diagram

Electrical Connection Type 2509



* Orientation is not important

Electrical Connection:
Ensure supply voltage/frequency corresponds with that on label.
Voltage tolerance is ± 10 %.
Available Electrical Connections see “Marking”.
Wiring diagram see above.

For this product to be considered UL-listed and CSA approved for General Purpose and FM approved for Hazardous Locations Division 2, it must be in conjunction with the type 2509 cable plug connector (Electrically Operated Valves Parts, YSYI2).
The connector and gasket must be assembled to the valve with the screw provided after the connection of the wire leads. This valve and connector assembly is delivered together and is to be used as one unit.

For valves to be used in Intrinsically Safe Applications the positive pole is identified by a “+” on the pin or wire No. 1 has to be connected to the “+”.
See Control Drawing for the Rules of Interconnection.

Warning:
All valves to be used in Intrinsically Safe Applications must be clearly marked as Intrinsically Safe Apparatus.

Trouble-Shooting:
Check port connections, minimum operating pressure differential if required and supply voltage. Ensure pilot hole in piston is clear and pilot bore in the valve outlet is not abstracted. If core does not pull in, check for short circuit, coil burn-out or foreign matter impeding core movement. A jammed or missing core causes the coil to overheat in the case of AC supply.

Warning:
These products are designed to operate in a wide variety of applications, it is the user’s responsibility to select a model that is appropriate for the application. This product is designed to be installed only by suitably qualified and trained personnel. Specifications should not be exceeded under any circumstances.

The torque for the terminal screw on type 2509 is 0,5 Nm (4,4 lbf-in.).

Changes made to this product will render any applicable warranty null and avoid.

Specifications subject to change without notice.

Any questions? Please call Bürkert Contromatic Technical Service at (949) 223 31 00.

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